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NSC lung cancer drug pipeline is strong: Analyst

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Singapore: Non-Small Cell Lung Cancer (NSCLC) treatment pipeline has a diverse selection of 122 first-in-class products and 96 first-in-class targets, giving cause for optimism as the market shifts away from outdated chemotherapies, according to business intelligence provider GBI Research.

According to the company's report, out of 389 drugs in active development across all stages, 38 percent have a first-in-class mechanism of action. While these products are most commonly found in the earlier development stages, they are still present in the later stages.

Mr Joshua Libberton, analyst, GBI Research, says that despite a high product attrition rate, a healthy distribution of drugs across the various Phases of development will ensure a steady stream of new treatments advancing through each stage and ultimately being granted market approval.

Mr Libberton commented, "The NSCLC therapeutics space is dominated by 'old' chemotherapies and used to be differentiated by histology or cell type to determine the course of treatment, but recent advances have characterized the underlying mutations much more accurately.
"The most promising first-in-class therapeutics tend to target components of vital cancer signaling pathways, offering innovative mechanisms to counteract the negative effects of increasing numbers of mutated, amplified or overexpressed proteins in NSCLC tumors."

The analyst notes that there is robust scientific rationale supporting the development of the most promising targets.

Mr Libberton continued, "Analysis shows that many first-in-class pipeline products align to molecular aberrations or the dysfunctional signaling pathways of which they are components.

"Preclinical data frequently supports combination treatment use to yield the best results. First-in-class therapies that target survival signaling or cell cycle regulation exhibit the greatest decreases in tumor growth or volume, when used with a currently marketed therapeutic."

The analyst adds that among the most promising first-in-class targets are several components of highly researched pathways, such as Phosphatidylinositol-4, 5-bisphosphate 3-Kinase (PI3K) signaling, highlighting the successful application of cancer research into promising drug development.

"Despite being commercially risky, targeted therapies have proven to be some of the most successful products across the industry over the last decade, so there is a strong case for innovation in NSCLC treatment," Libberton concludes.